

# ABSTRACT OF THE DISCLOSURE

An apparatus for ion attachment mass spectrometry provided with an ion emitter for emitting positively charged metal ions, an ionization chamber for causing attachment of the metal ions to a gas to be detected, a third component gas introduction mechanism for introducing a third component gas into the ionization chamber, and a mass spectrometer for mass separation and detection of the detected gas with the metal ions attached. The third component gas introduction mechanism is provided with three types of third component gases and selectively introduces one type of third component gas from the three types of third component gases. Due to this, the occurrence of interference peaks due to macromers of third component gases with each other, macromers of third component gases and high concentration ingredients, etc. is prevented and accurate mass analysis made possible.